REMARKS

Claims 15-26 are currently pending. Claims 15-26 are rejected. Applicants' counsel thanks Examiner for extending the courtesy of holding a personal interview on July 16, 2007 wherein art references and prior art arguments were discussed. Reconsideration of the application in view of the current claims is respectfully requested and further in view of the following Remarks.

I. Claim Rejections under 35 U.S.C. §112

The Examiner has rejected Claim 22 under 35 U.S.C. §112, first paragraph, for allegedly failing to comply with the written description requirement. More specifically, the Examiner asserts that for the term "immunomodulating drug" "the disclosure fails to provide sufficient relevant identifying characteristics, and because the genus is highly variant, one of skill in the art would reasonably conclude that the disclosure fails to provide a representative number of species to describe the genus as broadly as claimed." Further, the Examiner states no definition is provided for "immunomodulating drugs" and only the immunomodulating drugs methotrexate and cyclosporine are disclosed in the specification. Applicants traverse the rejection.

Claim 22 is a method claim for the co-administration of a CD1d blocking antibody with a second therapeutic agent from the group of non-steroidal anti-inflammatory drugs, corticosteriods, immunomodulating drugs and/or anticoagulant. The identifying characteristic of the group of immunomodulating drugs is that they modulate the activity of the immune system. This disclosure meets the objective standard for determining compliance with the written description requirement because a person of ordinary skill in the art can readily determine by way of a drug index, manual, textbook, medical journal, or resources on the internet that a particular drug modulates the immune system, thereby allowing the person to recognize that the Applicants have invented what is claimed. *In re Gosteli*, 872 F.2d 1008, 1012, 10 USPQ2d 1614, 1618 (Fed. Cir. 1989).

Furthermore, in paragraph 0060 of the specification, the Applicants disclose the use of six immunomodulating drugs besides the disclosed non-steroidal anti-inflammatory drugs and corticosteroids. They are: chloroquine, hydroxychloroquine, azathioprine, cyclophosphamide,

methotrexate and cyclosporin. These drugs vary widely in their structure, but are well known in the art to modulate the immune system and are used to treat autoimmune diseases including rheumatoid arthritis and SLE. Applicants contend that the disclosure of six drugs is adequate to establish a genus.

A strong presumption exists as to the adequacy of the written description of the claimed invention and the Examiner has the initial burden of presenting evidence as to why a person skilled in the art would not recognize in the disclosure a description of the invention defined in the claims. *In re Wertheim*, 541 F.2d 257, 263, 191 USPQ 90, 97 (CCPA 1976). The Examiner's assertion that the specification does not disclose the definition of immunomodulating drug is insufficient to overcome this presumption as the Applicant's rely on the plain meaning of the term "immunomodulating drug", i.e., a drug that modulates the immune system.

The Examiner's assertion that the disclosure fails to provide sufficient relevant identifying characteristics is also insufficient to overcome the presumption because, it is the function of the drugs in question, i.e. immunomodulation, rather than any structural or mechanistic characteristic that they possess that is claimed. The identification of a class of drugs as immunomodulating is enough for one skilled in the art to recognize in the disclosure a description of the invention defined in the claims. Likewise, the assertion of the genus being "highly variant", presumably in regards to structure or mechanism of action, is yet again insufficient as it is the function of the drugs, immunomodulation, that is important, not their structure or mechanism of action.

Applicants respectfully contend that the rejection of pending claim 22 under 35 U.S.C. §112 is in error because the description as filed is presumed to be adequate and the Examiner has not met her burden of rebutting the presumption. Further, Applicants assert that the specification, in fact, conveys with reasonable clarity to those skilled in the art that the Applicants were in possession of the claimed invention as of the filing date sought. Therefore, Applicants respectfully request that the rejection be withdrawn.

II. Claim Rejections Under 35 U.S.C. § 103(a)

The Examiner has rejected claims 15-20 and 23-26 under 35 U.S.C. §103(a) for allegedly being unpatentable over Amano et al (J. Immunol. 1998, 161: 1710-1717) in view of Kotzin (Cell,

1996, 85: 303-306), Zeng et al (J. Exp. Med. 1998, 187: 525-536), Blumberg et al (Immunol. Rev. 1995, 147: 5-29) and Hughes (Drug Disc. Today 3(10): 439-442, 1998). The Examiner has further rejected claims 21 and 22 under 35 U.S.C. 103(a) as being unpatentable over Amano et al. in view of Kotzin, Zeng et al., Blumberg et al., and Hughes as applied to claims 15-20 and 23-26 above, and further in view of the Merck Manual (pages 1317-1321, 16th Edition, 1992, of record). Applicants traverse the rejection.

Applicants provide a Declaration under 37 C.F.R. 1.132 by Dr. Strober, who is co-inventor of the present application and senior author of the two primary journal articles cited by Examiner. As explained by Dr. Strober, the experimental models studied in the two articles do not provide for a reasonable expectation of success in the methods of the invention because the models did not study NKT cells. In the transgenic mouse model of Zeng, all of the T cells expressed the $V_\beta 9$, $V_\alpha 4.4$ T cell receptor (TCR) and not the $V_\alpha 14J_\alpha 18$, TCR found on NKT cells. Only through the unexpected results obtained by Applicants did one of skill in the art become knowledgeable of the causative role of NKT cells in pathogenic B cell activation and the ability of anti-CD1d antibody administration to ameliorate lupus symptoms.

Additionally, Dr. Strober presents further surprising and unexpected results. Dr. Strober recently found that in a hereditary murine model of lupus, the incubation of B cells with NKT cells, but not conventional T cells, resulted in markedly increased secretion of IgM and IgG. Immunoglobulin secretion is significantly reduced by the addition of an anti-CD1d antibody. These results would not be predictable from the teachings of Zeng who found that transgenic T cells induce immunoglobulin secretion because Zeng studied T cells not NKT cells and all of the T cells expressed a different receptor than is expressed on NKT cells.

Dr. Strober's colleague, Dr. Edgar Engleman found that normal human B cells do not spontaneously secrete IgM. When NKT cells are added, however IgM secretion is induced. The B cells of lupus patients, on the other hand, spontaneously secrete IgM and IgG. Production of immunoglobulins is further increased by the addition of NKT cells to the culture. NKT cells also induce the production of anti-double stranded DNA antibodies, one of the hallmarks of lupus. The addition of anti-CD1d antibody inhibits the production of antibodies by both normal and lupus patient B cells presumably through blocking the interaction of the TCR on NKT cells with CD1d

on B cells. Again these results would not be predictable from the transgenic T cell results of Zeng because they demonstrate the involvement of NKT cells in the etiology of lupus. Furthermore, Dr. Engleman's results suggest that immunoglobulin production in lupus patient B cells is disregulated since these cells spontaneously secrete immunoglobulins and that NKT cells further stimulate immunogobulin production.

Applicants respectfully contend that Dr. Strober's Declaration demonstrates that the instant invention is not obvious in light of the cited references and therefore, ask Examiner to withdraw the rejection of claims 15-26 under 35 U.S.C. §103(a).

CONCLUSION

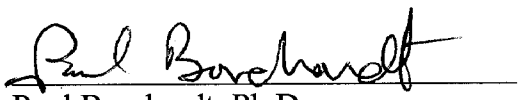
For the foregoing reasons, Applicant requests the Examiner to allow claims 15-26, and advance the application to issuance.

FEE AUTHORIZATION

The Commissioner is authorized to charge any additional fees which may be required, including petition fees and extension of time fees, to Deposit Account No. **23-2415** (Docket No. 31580-702.201).

Respectfully submitted,

Date: October 30, 2007

By: 

Paul Borchardt, Ph.D.
Registration No. 53,999

WILSON SONSINI GOODRICH & ROSATI
650 Page Mill Road
Palo Alto, CA 94304-1050
(650) 493-9300
Customer No. 21971